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Cat. No. 49-549

OWNER'S MANUAL

Please read before using this equipment.

Infrared Motion Sensor

with Body Heat Detector

RadioShack®

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FEATURES

Your RadioShack Infrared Motion Sensor is designed for use with household alarm systems, such as RadioShack wired-type home security equipment. The sensor's dual-element design provides coverage for distances up to 30 feet. When an intruder crosses into the protection zone, the sensor detects both motion and body heat and sets off the alarm. The sensor's features include:

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Alarm Normally Closed — works with a normally-closed alarm system.

Adjustable Pulse Counter — helps prevent false alarms.

Tamper Switch — lets the alarm system know when the sensor has been tampered with.

Zone Size Control — lets you adjust the sensor for the best coverage where it is installed.

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Pivoting Mounting Mechanism — lets you easily aim the sensor at the area you want to protect.

Test Indicator — lets you test the sensor to ensure correct operation.

Note: Installation location and wiring shall be in accordance with the National Electrical Code (NEC), NFPA 70.

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INSTALLATION

To help you avoid false alarms, mount your sensor:

- where sunlight does not shine directly on it.
- away from heat sources, such as space heaters, radiators, and exposed light bulbs.
- out of strong drafts, like those caused by central heating vents or air conditioners or air movement around fireplaces, exterior walls and windows, and refrigerators.
- where it is not exposed to outdoor elements.
- so it does not detect your pet's movements.

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MOUNTING THE BRACKET

Select a mounting location where the sensor is most likely to detect an intruder. We recommend mounting it at a height of about 6 feet 7 inches (2 meters); the maximum mounting height is 10 feet (3 meters). To mount the sensor's bracket:

1. Loosen the two Phillips screws on the mounting bracket so the parts can be easily moved out of the way.
2. Hold the bracket at the mounting location and, using it as a template, mark the positions for the screw holes.
3. Drill the two screw holes, then (if needed) press the supplied anchors into the holes.

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4. Attach the mounting bracket with the supplied screws.

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WIRING THE SENSOR

Caution: Turn off the power to your alarm system before you remove the cover. Do not apply power until all connections to the sensor have been made and inspected.

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To remove the front cover, use a Phillips screwdriver to remove the screw from the back cover. Then release the latch on the bottom of the

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sensor by sliding a flat-blade screwdriver into the slot.

Follow these steps to connect the sensor to your alarm system terminals.

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1. For all wiring, use a wire pair (not supplied) that is no smaller than #22 AWG (0.643 mm diameter) and strip about 1/4 inch (7 mm) of the insulation off the ends of the wires.

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2. Using a screwdriver, break out the three punch-outs on the back of the sensor and feed all wires through these punch-outs to the terminals.
3. Loosen the Phillips screws at the terminals you need, slide each wire between the terminal's contacts, then tighten the screw to secure the connection.
4. Wire terminals 1 and 2 to a 12 VDC (measured at the terminals) output power source.
5. Wire terminals 3 and 4 to normally-closed sensor terminals on your alarm system. Detecting motion will cause an open circuit.

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6. Wire terminals 5 and 6 to normally-closed tamper terminals. Removing the cover will cause an open circuit.

Note: Do not coil excess wire inside the sensor.

After all connections are complete, snap the front cover back onto the sensor, then reinsert and tighten the screw on the back cover.

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SETUP

Slide the mounting bracket's rectangular tab into the grooves on the back of the sensor. Adjust the sensor's angle up or down, then tighten the screw on the side of the bracket. Adjust the sensor's position side to side, then tighten the screw in the bottom of the bracket's ball joint.

SETTING THE ZONE SIZE

GAIN determines the size of the protection zone. Using a flat-blade screwdriver, turn **GAIN** clockwise to increase the size of

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the zone. Turn **GAIN** counterclockwise to decrease the size of the zone.

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If the protection zone covered by the sensor extends into an area you do not want to monitor, cut off the ends of the supplied plastic mask as needed, then slide the mask into the grooves at the top and bottom of the sensor's lens to cover that part of the lens.

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SETTING THE PULSE COUNTER

PULSE determines the sensor's sensitivity to motion and body heat.

You are most likely to sense an intruder when you set **PULSE** to **1**.

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For slightly less sensitivity to motion and body heat, set **PULSE** to **2**.

For maximum false alarm immunity, set **PULSE** to **3**, reducing the sensitivity to its lowest level.

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TESTING

After you make and double-check all connections and finish setup, test the sensor. Wait at least one minute after applying power to start the test.

1. Set **LED** to **ON**.

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2. Walk through the protection zone. Watch the indicator on the front of the sensor to see if it lights within four steps. If it does, the sensor detects motion or body heat.
3. Walk through the zone three more times, each time in a different direction. The sensor should detect movement in at least three of the four directions you walked. If the indicator does not light in at least three of the four directions, adjust the sensor's position and angle (as needed).
4. Stand clear of the protection zone, but where you can see the indicator. It should not light. If it does light, check the protected area to see what is causing the false

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alarm. Remove the item, reduce the zone size (**GAIN**), change the **PULSE** setting (sensitivity), mask the sensor's lens so certain areas are not monitored, or adjust the sensor's position and angle (as needed).

5. Set **LED** to **OFF**. The indicator does not light even when the sensor detects an intruder. This keeps the intruder from knowing if the sensor is operating.

Note: We recommend you test the sensor once a week.

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CARE

To enjoy your RadioShack Infrared Motion Sensor for a long time:

- Keep the sensor dry. If it does get wet, wipe it dry immediately.
- Use and store the sensor only in normal temperature environments.
- Handle the sensor gently and carefully. Don't drop it.
- Keep the sensor away from dust and dirt.
- Wipe the sensor with a damp cloth occasionally to keep it looking new.

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Modifying or tampering with the sensor's internal components can cause a malfunction and invalidate its warranty. If your sensor is not performing as it should, take it to your local RadioShack store for assistance.

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SPECIFICATIONS

Operating Voltage ..... 12 VDC

Operating Current ..... 50 mA DC (Maximum)

Coverage Area ..... Up to 30 Feet at a 110° Angle

Power-On Delay Time ..... 55–70 Seconds

Relay Output Duration (N.O.) ..... 3 Seconds (Minimum)

Relay Output Rating with a Resistive Load:
1A @ 28 VDC (Maximum)

Tamper Switch Rating with a Resistive Load:
100 mA @ 28 VDC (Maximum)

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Specifications are typical; individual units might vary. Specifications are subject to change and improvement without notice.

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Limited Ninety-Day Warranty

This product is warranted by RadioShack against manufacturing defects in material and workmanship under normal use for ninety (90) days from the date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. EXCEPT AS PROVIDED HEREIN, RadioShack MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CONTAINED HEREIN. EXCEPT AS PROVIDED HEREIN, RadioShack SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY USE OR PERFORMANCE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGES RESULTING FROM INCONVENIENCE, LOSS OF TIME, DATA, PROPERTY, REVENUE, OR PROFIT OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RadioShack HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow the limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

In the event of a product defect during the warranty period, take the product and the RadioShack sales receipt as proof of purchase date to any RadioShack store. RadioShack will, at its option, unless otherwise provided by law: (a) correct the defect by product repair without charge for parts and labor; (b) replace the product with one of the same or similar design; or (c) refund the purchase price. All replaced parts and products, and *(Continued)*

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(Continued) products on which a refund is made, become the property of RadioShack. New or reconditioned parts and products may be used in the performance of warranty service. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

This warranty does not cover: (a) damage or failure caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, lightning or other incidence of excess voltage or current; (b) any repairs other than those provided by a RadioShack Authorized Service Facility; (c) consumables such as fuses or batteries; (d) cosmetic damage; (e) transportation, shipping or insurance costs; or (f) costs of product removal, installation, set-up service adjustment or reinstallation.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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Printed in Hong Kong